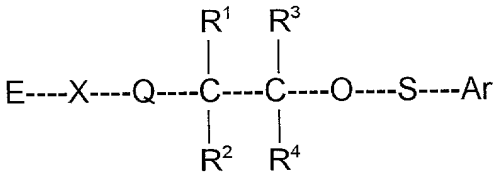
WHAT IS CLAIMED IS:

1. A sulfenate compound having the formula



wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, steroid receptor binding molecules, and carbohydrate receptor binding molecules, and dihydroxyindolecarboxylic acid;

X is selected from the group consisting of -(R^5)NOC-, -(R^5)NOCCH_2O -, -(R^5)NOCCH_2CH_2O-, and -HNC(=S)NH;

R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, C1-C10 polyhydroxyalkyl, and C1-C10 polyalkoxyalkyl;

Q is either a single bond or an alkenyl, aromatic, or heteroaromatic radical derived from a compound selected from the group consisting of olefins, benzenes, naphthalenes, naphthoquinones, fluorenes, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidiazoles, oxazoles, thiazoles, pyrazoles, pyrazines, purines, benzimidazoles, furans, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones, flavones, coumarins, and anthacylines; and

Ar is an aromatic or heteroaromatic radical derived from a compound selected from the group consisting of benzenes, naphthalenes, naphthoquinones, diphenylmethanes, fluorenes, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidiazoles, oxazoles, thiazoles, pyrazoles, pyrazines, purines, benzimidazoles, furans, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones, flavones, coumarins, and anthacylines.

2. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

3. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor

binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

4. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

5. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from

the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

6. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

7. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones,

phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

8. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

9. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

10. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

11. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

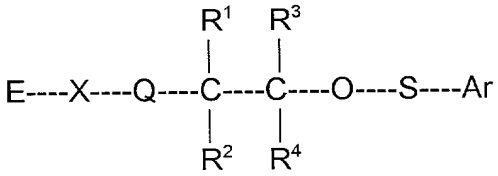
12. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of $-(R^5)NOC-$, and $-(R^5)NOCCH_2O-$; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

13. The compound of claim 1 wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of $-(R^5)NOC-$, and $-(R^5)NOCCH_2O-$; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

14. The compound of claim 1 wherein E is associated with a biomolecule selected from the group consisting of hormones, amino acids, peptides, peptidomimetics, proteins, nucleosides, nucleotides, nucleic acids, enzymes, carbohydrates, glycomimetics, lipids, albumins, monoclonal antibodies, polyclonal antibodies, receptors, inclusion compounds, receptor binding molecules, polyaminoacids, polyols, polyamines, polyacids, oligonucleotides, aborols, dendrimers, and aptamers.

15. A method of performing a phototherapeutic procedure which comprises the steps of:

(a) administering to a target tissue in an animal an effective amount of a sulfenate photosensitizer having the formula



wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, steroid receptor binding molecules, and carbohydrate receptor binding molecules, and dihyroxyindolecarboxylic acid; X is selected from the group consisting of -(R^5)NOC-, -(R^5)NOCH_2O -, -(R^5)NOCH_2CH_2O-, and -HNC(=S)NH; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, C1-C10 polyhydroxyalkyl, and C1-C10 polyalkoxyalkyl; Q is either a single bond or an alkenyl, aromatic, or heteroaromatic radical derived from a compound selected from the group consisting of olefins, benzenes, naphthalenes, naphthoquinones, fluorenes, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidiazoles, oxazoles, thiazoles, pyrazoles, pyrazines, purines, benzimidazoles, furans, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones,

flavones, coumarins, and anthacylines; and Ar is an aromatic or heteroaromatic radical derived from a compound selected from the group consisting of benzenes, naphthalenes, naphthoquinones, diphenylmethanes, fluorenes, anthracenes, anthraquinones, phenanthrenes, tetracenes, naphthacenediones, pyridines, quinolines, isoquinolines, indoles, isoindoles, pyrroles, imidiazoles, oxazoles, thiazoles, pyrazoles, pyrazines, purines, benzimidazoles, furans, benzofurans, dibenzofurans, carbazoles, acridines, acridones, phenanthridines, thiophenes, benzothiophenes, dibenzothiophenes, xanthenes, xanthones, flavones, coumarins, and anthacylines; and

(b) exposing said target tissues with the light of wavelength between 300 and 950 nm with sufficient power and fluence rate to perform the phototherapeutic procedure.

16. The method of claim 15 further comprising the step of allowing said photosensitizer to accumulate in said target tissue.

17. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

18. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

19. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from benzene.

20. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

21. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH_2O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

22. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and

steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from anthracene.

23. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

24. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an alkenyl radical derived from olefins; R^1

to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

25. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from acridine.

26. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is a single bond; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and

C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

27. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an alkenyl radical derived from olefins; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10 alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

28. The method of claim 15, wherein E is selected from the group consisting of somatostatin receptor binding molecules, heat sensitive bacterioendotoxin receptor binding molecules, neurotensin receptor binding molecules, bombesin receptor binding molecules, cholesystekinin receptor binding molecules, and steroid receptor binding molecules; X is selected from the group consisting of -(R^5)NOC-, and -(R^5)NOCCH$_2$O -; Q is an aromatic radical derived from a compound selected from the group consisting of benzenes, furans, pyrroles, imidazoles, thiophenes, anthraquinones, quinolines, indoles, acridines, acridones, xanthenes, xanthones, phenanthridines, and anthacylines; R^1 to R^5 are independently selected from the group consisting of hydrogen, C1-C10

alkyl, C5-C10 aryl, and C1-C10 polyhydroxyalkyl; and Ar is an aromatic radical derived from phenanthridine.

29. The method of claim 15 wherein E is associated with a biomolecule selected from the group consisting of hormones, amino acids, peptides, peptidomimetics, proteins, nucleosides, nucleotides, nucleic acids, enzymes, carbohydrates, glycomimetics, lipids, albumins, monoclonal antibodies, polyclonal antibodies, receptors, inclusion compounds, receptor binding molecules, polyaminoacids, polyols, polyamines, polyacids, oligonucleotides, aborols, dendrimers, and aptamers.

30. The method of claim 29 wherein the effective amount of the sulfenate photosensitizer administered to the target tissue is in a range of about 0.1 mg/kg body weight to about 500 mg/kg body weight.

31. The method of claim 30 wherein the effective amount of the sulfenate photosensitizer administered to the target tissue is in a range of about 0.5 mg/kg body weight to about 2 mg/kg body weight.

32. The method of claim 15 wherein the sulfenate photosensitizer is parenterally administered to the target tissue in a formulation including the sulfenate photosensitizer and materials selected from the group consisting of pharmaceutically acceptable buffers, emulsifiers, surfactants, and electrolytes.

33. The method of claim 32 wherein the formulation is parenterally administered to the target tissue in a concentration in a range of about 1 nM to about 0.5 M.

34. The method of claim 15 wherein the sulfenate photosensitizer is enterally administered to the target tissue in a formulation including the sulfenate photosensitizer and materials selected from the group consisting of buffers, surfactants, emulsifiers, and thixotropic agents.

35. The method of claim 15 wherein the sulfenate photosensitizer is topically administered to the target tissue in a formulation including the sulfenate photosensitizer and materials selected from the group consisting of liquid excipients and semisolid excipients.

36. The method of claim 15 wherein the sulfenate photosensitizer is administered in a form selected from the group consisting of an aerosol spray, a cream, a gel, and a solution.